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ABSTRACT

The purpose of this study was to determine the predictive power of affective and cognitive variables, measure students' affective and cognitive levels of development, and examine the relationship of the affective domain to the cognitive domain of students. Data were collected from 100 randomly selected students in the Child Development I course at Stout State University. Instrumentation included the Inventory of Attitudes on Child Guidance and the DV-Child Development Inventory. Results of a three-phase study supported the hypothesis that student performance in the course can be predicted from the DV-Child Development Inventory. Data analysis supported the hypothesis that a cognitively oriented course would have a significant influence on changing students attitudes, but the hypothesis that observing children while studying child development would significantly influence students' child guidance attitudes was not supported. No significant attitude changes occurred in the areas of understanding the child, reflecting and accepting the child's feelings, redirecting undesirable behavior, encouraging independence and initiative, and encouraging verbalization. There was a significant change in student attitudes in the area of encouraging creativity by those students who had an observation experience. (MBM)

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The Wisconsin State Universities Consortium of Research Development

# Research Report

# AN INVESTIGATION OF THE COGNITIVE AND AFFECTIVE DOMAINS OF STUDENTS STUDYING CHILD DEVELOPMENT

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Henry E. Draper & Mary Wanda Vansickle
Wisconsin State University
Menomonie, Wisconsin

1970

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U.S. DEPARTMENT OF
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# INTRODUCTION

The Wisconsin C.O.R.D. project is designed to promote educational research in the Wisconsin State University system. Its primary objective is the development of interest in the capacity to carry on research concerned with the improvement of teaching and learning. The C.O.R.D. project is aimed specifically at strengthening instruction. This investigation was designed to plan, organize and develop improved instructional media for the introductory child development course which presently serves between 800-1,000 students per year.

The underlying assumption of this study was that students, through the utilization of modified instructional packages and within the framework of a cognitive orientation, would significantly change their attitudes toward children during the Child Development I course. The central problem of the study was to determine the effectiveness of the introductory course, in relationship to the course design, on the cognitive and affective development of students.

University observation laboratories for studying children are often unstructured, presuming that students will acquire "a feeling" for children by observing them. Many programs often operate under the assumption that development in the affective domain must preceed development in the cognitive domain. This project proposed an alternative approach to more efficiently assist the student in acquiring positive attitudes toward children based on the premise that the affective domain of the student's development will be increased as a by-product of his cognitive growth. Another premise was that unstructured observation laboratories are of negligible value to the student's affective development.

In the introductory child development course, laboratory experiences were previously designed whereby the student observed the behavior and activities of children in the university Child Study Center. Check sheets were usually provided to give direction for the activity being observed. The structure of the course evolved into two hours of lecture per week for large groups of one hundred or more students and two-hours laboratory per week devoted to student participation and instruction for small groups of twenty to twenty-five students. This design presented three major problems:

First, the mechanics of scheduling and the management of observation experiences for several hundred students as Stout's limited Child Study Center facility made an efficient learning situation impossible. The Child Study Center can accommodate eight students per hour. The children's programs are in operation six hours per day, thus allowing for observation by forty-eight students per day at five days per week or three-hundred twenty student hours per week. The number of students requiring observation experiences in the Child Study Center presently amounts to 1,000-1,200 student hours per week. Staff resources and limited space do not permit adequate coverage for such services to students.

Second, facilitating accurate interpretation of observations and meaningful dialogue among students necessitated designing a situation whereby all students observe similar behavior and developmental aspects of children. Limited resources prevented implementation of this design.

Third, the scheduling of students in large lecture sections of 100-500 has become necessary. The presentation of materials and information as well as management of these classes, required major alteration of the instructional package concept. The instructional package approach in

this investigation was modified in order to accommodate large sections of students with limited staff and facility resources.

The instructional package approach to learning was operationalized for this project as the identification and development of specific child development competencies. These were categorized into three areas: cognitive, affective, and psychomotor. The necessary learning experiences were organized to assist students to achieve the desired behavioral objectives of the course. Ultimately, after a level of mastery had been reached, the student proceeded to the next phase of experiences. If the expected mastery was not achieved, additional work was pursued until mastery was accomplished.

Several methods of structuring the course were explored to accommodate a large enrollment while attempting to provide more effective learning experiences for the student and more efficient utilization of staff resources. The course design for this project evolved into two lecture periods and two laboratory periods per week. Laboratory experiences, generally organized around the observation of young children in a nursery school setting, were changed to include instructional activities, group dialogue, and student participation under the direction of a graduate teaching assistant.

Competencies to be achieved by the students in the labs were identified at the outset of the course. The experiences necessary to achieve these competencies were provided through a variety of media including films, materials, readings, observations, etc. Laboratory instructors provided a base for interaction and discussion among students in addition to direction for utilization of learning resources. The evaluation of students was accomplished by objective, machine scored tests designed by the instructors.

The tasks listed below were planned, initiated, and achieved as the C.O.R.D. project was completed:

1. The course structure and content were redesigned to accommodate integration of lecture, discussion and instructional packages around cognitive, affective and psychomotor domains for large sections of 100 to 500 students. The large sections met two hours per week and were divided into small groups of 20-25 students meeting two additional hours per week.
2. An extensive, 4 x 6 card file of pre-test/post-test questions for evaluation purposes was developed and utilized.
3. An instrument composed of seven subscales (DV-Child Development Inventory) was developed for measuring student competencies in cognitive areas of child development. (This instrument is also conceived as a potential device for testing out of the course.)
4. A child care attitude scale (Inventory of Attitudes on Child Guidance) was revised for determing student achievement in the affective domain.
5. A video tape was developed for use with the instructional package on motor development.
6. An evaluation of the DV-CDI was completed by Dr. Boyd C. Rollins, Bringham Young University. Following his evaluation, Dr. Rollins met with the instructors to discuss utilization of the instrument in the child development course.
7. Visits to children's programs by the course instructors were made to collect additional information concerning possible alternatives for participation and observation by child development students. The following visits offered input into the C.O.R.D. project:

Parent Child Center--Minneapolis, Minnesota

Merrill Palmer Institute of Human Development

and Family Life--Detroit, Michigan

Bank Street College--New York, New York

8. Four graduate assistants, working with the child development instructors, are continuing the development of a laboratory manual for use in individual and group experiences.

9. Modified instructional packages were identified in the areas listed below. Some were completed and some are still to be developed.

A. Development
   1. Definition of growth, maturation, and development
   2. Principles of development
   3. Individual variation
   4. Developmental tasks
   5. Critical periods

B. Body Growth
   1. Structure and function of brain
   2. Structure and function of nervous system
   3. Structure and function of teeth
   4. Structure and function of bone
   5. Structure and function of muscle

C. Measurement of Growth
   1. Computation of mean and standard deviation (adapted from Sedgwick/Courtney)
   2. Age, height and weight
   3. Prediction of weight and height
   4. Diagnosis of accelerated or slow weight and height
   5. Use of growth norms and growth charts
   6. Weight and height sequence

D. Influences upon Development
   1. Genetic
   2. Organic
   3. Environmental
   4. Nutrition
   5. Race/cultural

E. Adjustment of Physical Disorders
   1. Adjustment consequences
   2. Male-female differences

F. Introduction to Motor Development
   1. Operational definitions
   2. Relationship of motor development to growth and maturation
   3. Neurologic[redacted]relationship to development
   4. Cate[redacted]and sequence of motor development

G. Measurements of Motor Development
   1. Scales for measuring motor development
   2. Assessment of normal and abnormal motor development
   3. Symptoms of accelerated and slow motor development

H. Motor Development Sequence
   1. Early childhood
   2. School-age child
   3. Adolescent

I. Motor Development Adjustments
   1. Male-female differences
   2. Promotion and stimulation of motor skills
   3. Adjustments to physical defects
   4. Therapy and compensatory programs

J. Program Models in Early Childhood Education
   1. The Traditional Nursery School
   2. The New Nursery School
   3. Bereiter-Engelmann program
   4. Reinforcement program--operant conditioning
   5. Montessori
   6. Darcee program
   7. Martin Deutsch program

K. Assessment of Early Childhood Education Program
   1. Spodek's criteria
   2. Goals vs. methods and techniques
   3. Evaluation

L. Intellectual Development
   1. Structure of Intelligence
   2. Behavior composition of I.Q. tests
   3. Measurement and prediction of I.Q.
   4. Measurement and prediction of achievement
   5. Measurement and prediction of motivation

M. Socialization
   1. Models of parent/child interaction
   2. Measurements of achievement
   3. Adjustment mechanisms

## REVIEW OF LITERATURE

A review of literature on attitude reflects a need for an emphasis directed toward the study of cognitive, motivational, and behavioral aspects of learning processes. Much research on attitude change seems to suffer from a plurality of self-deflating objectives. Studies often begin as attempts to describe the distribution of opinions among sections of the populations. It appears that negligence in detailing the behavior from which attitudes are inferred has been one of the problems in researching attitude. There is a tendency to become preoccupied with independent variables resulting in crude ratings of the dependent variables by which hypotheses are accepted or rejected. (Sherif and Sherif, 1965). A more appropriate approach may be the assessment of behavioral correlates of attitudes. In order to increase the relevance of change, Cook and Seltz (1964) suggested a refinement of behavioral indices of attitudes coupled with more vigorous attempts to conceptualize linkages by the attitudes and behaviors.

Perhaps, research has too often been directed at attempting to predict some behavior from some measure of attitude and thus has found little or no relationship between the variables. Rather than questioning the basic assumptions underlying a strong relationship between the attitude and behavior, there has been a tendency to blame failure on measurement instruments and/or definitions of attitudes. Clarification of the goals of attitude study cannot be over emphasized. Koslin (1967) states:

> "At an abstract level, the aim of research is directed toward formulating generalizations about the regularities of attitude phenomena. A theory of attitudes should organize invariant relationships (laws into a logical internally consistent structure) that explain how attitudes are formed and transformed in a wide array of situations. The goal of attitude theory construction is to formulate a logically connected structure of lawful relations that govern how attitudes are formed and changed in the widest possible set of circumstances, during human development, and in response to social interaction and persuasion in all social settings the world over."

The concept of attitude has thus evolved from a unidimensional to a multidimensional concept consisting of affective and cognitive components. Though improvements in general understandings of the relationship between the beliefs and attitude have resulted, there seems to be a lack of understanding of the specific relationship between these. (Fishbein, 1967)

The term, attitude, has become broadly interpreted to signify a multitide of meanings to various writers. Because of its abstractness and serviceability, the inevitable result has been that the meaning of attitude is somewhat indefinite and its scientific status is often called into question. In spite of the animadversions of critics, the term is now in nearly universal use and plays a central role in most of the recent systematic studies in social psychology.

Sherif and Sherif (1965) present the following characteristics of attitude:

1. Attitudes are not innate. It is assumed that the appearance of an attitude is dependent on learning. Attitudes belong to that domain of human motivation variously studied under the labels of "social drives", "social needs", "social orientations", etc.
2. Attitudes are not temporary states but are more or less enduring once they are formed. Attitudes do change--but once formed they acquire a regulatory function such that, within limits, they are not subject to change with the ups and downs of homeostatic functioning of the organism or with every just noticeable variation in the stimulus conditions.
3. Attitudes always imply a relationship between the person and the objects. Attitudes are not self-generated, psychologically. They are formed or learned in relation to identifiable referents, whether these are persons, groups, institutions, objects, values, social issues, or ideologies.

4. The relationship between the person and object is not neutral but has motivational affective properties. The linkage between the self and the social environment is seldom neutral.
5. The formation of attitudes is integral to the process of forming a self-concept.

Because these criteria include the person's relatedness to relevant objects on a conceptual level, the approach is cognitive. It is also motivational and affective because attitudes are not neutral affairs. It is a behavioral approach because the only possible data from which attitude can be inferred are behaviors, either verbal or non-verbal.

Operationally, Sherif and Sherif define the concept of attitude as "the individual's set of categories for evaluating a stimulus domain, which he has established as he learns about the domain in interaction with other persons and which relate him to various subsets within the domain with varying degrees of positive or negative affect." Every attitudinal reaction thus implies that the person has compared, evaluated, or chosen among alternatives; thus, a judgment process occurs.

Krech and Crutchfield (1948) define attitude globally as "an enduring organization of motivational, emotional, perceptual, and cognitive process with respect to some aspect of the individual's world."

The assumption that attitudes can be measured, conceding that attitude is a complex affair which cannot be wholly described by any single numerical index, is supported by Thurstone (1967). The attitude is the researcher's main interest. Opinion and belief have interest only when interpreted as symbols of attitude. Measurement is aimed at something about attitudes, and opinion or belief in this context serve as a means for measurement.

Attitudes involve both affective and cognitive components (Smith, Bruner, and White, 1966). These components interact intimately with one another so that cognitions about attitudinal objects are not felt to be analyzable without consideration of affective forces.

Two important recent theoretical developments, Festinger's dissonance theory, and Heider's theory of cognitive balance, deal conceptually with the effects of organizing forces and affective forces upon cognitive elements. Both are concerned with changes in cognitive structure. Festinger's theory (1957) deals mainly with inconsistencies between belief and action, and attempts to specify certain circumstances under which there will be more or less change in belief as an outgrowth of cognitive "dissonance" due to such inconsistencies. Cognitive balance is claimed to exist if attitudes toward the parts of a causal unit are similar (Insko, 1967).

Doob (1947) argues that there may not be a one-to-one relationship between attitude and behavior. Attitude conceived as a learned predisposition to respond infers that the attitude is learned. One must learn what response to make; that is, there is no innate relationship between the attitude and behavior because one still has to learn a behavior response.

Fishbein (1965a) views beliefs and behavioral intentions as a part of attitude but defines these independently and views them as phenomenon that are related to attitudes. Beliefs and behavioral intentions in this context are considered as determinants or consequents of an individual's attitude. These take on a unidimensional form as indicants of one's attitude.

The research of Rosenberg and others (1960), Zajonc (1954), Fishbein (1967), and others demonstrated that an individual's attitudes toward any object are a function of his beliefs about the object and the evaluative aspects of those beliefs. A single "affective" score on an attitude scale

was assumed to be highly related to an individaul's beliefs about an attitude object.

Fishbein (1967) theorized that the attitude score is indexed from a consideration of the respondent's beliefs, his agreement or disagreement with each of the statements. This was in keeping with the Likert scaling where the subject is confronted with a series of belief statements. A similar application was made in the Bogardus (1925) Social Distance Scale where the single affective score obtained is based on a consideration of an individual's behavioral intentions and the evaluative aspects of these intentions. The purpose of this approach to measurement was to arrive at a single score that would represent how favorable or unfavorable an individual was toward the attitude object in question.

The conception of an attitude as a disposition to evaluate certain objects, actions and situations in a certain manner was presented by Chein (1947). This author theorized that attitude may be conscious or unconscious; that attitude may be momentary or persistent; and that attitude may pertain to matters socially significant or insignificant. The evaluations may or may not have strong personal pertinence, self-reference, or ego-involvement.

Chein (1947) listed the following agreements among researchers concerning the nature of attitudes:

1. A person is not born with his attitudes;
2. The learning process plays a major role in the development of attitudes;
3. Attitudes involve problems of perception and motivation;
4. As a result of a particular attitude a person may be more likely to perceive certain objects than others;

5. Some attitudes affect perceptions after their arousal even though they may not have oriented the person originally in the direction of the perceived objects;
6. Specific behavior cannot be safely predicted from a knowledge of attitude alone; and
7. People may act contrary to their attitudes.

The position taken by Chein (1947) was that process of thought and perception, leading to the formulation of learning, play a major role in the generation of attitudes. Past learning, for example, are significant in determining how a given situation or object is perceived and what a person wants in it rather than in what learning had previously occurred.

In the cognitive summation theory, Fishbein (1965) proposed that with respect to any object, an individual has a positive, negative, or neutral attitude; that is a mediating evaluative response associated with every stimulus. Beliefs about an object may be viewed in terms of probability (or strength) of stimulus response associations. In this framework, a belief system, the habit-family hierarchy of responses, is the totality of an individual's beliefs about an object. The higher the response in the hierarchy, the stronger the belief. Thus, the strength of an individual's beliefs about the object and the evaluative aspect of those beliefs can be predicted.

Fishbein (1967) indicated that most of the standardized attitude measurement instruments (Thurston Scales, Likert Scales, Guttman Scales, and others) obtain their estimates of attitude through consideration of a set of the respondent's beliefs about the attitude object and the evaluative aspects of those beliefs. He further stated that the amount and direction of attitude change results in a function of: 1) the number, strength and evaluative aspects of the new beliefs he learns and 2) the individual's initial attitude,

and thus the number, strength, and evaluative aspects of his salient beliefs. An individual's attitude toward some concept will only change if he learns something new about the concept.

To contribute to the conduct of research on an improved basis through consolidated thought about the nature of attitude and attitude change processes, Hartley (1967) insisted that researchers must:

1) be sensitive to the social atmosphere within the framework of which research undertakings are developed;
2) endeavor to identify and report the nature of the reference groups dominant for the respondents at the time and under the conditions of the data collection; and
3) to explore, even if only speculatively, how, under different circumstances with different reference groups evoked, the same subjects might respond differently to the same materials.

The work of Hovland, Lumsdaine, and Sheffield (1949) as well as that of Sherif and Sherif (1965) and Berelson (1948) clearly demonstrated that the attitudes easiest to change, shape, or form are the least structured ones. Sherif and Cantril (1945) presented evidence that once attitudes are formed they tend to maintain themselves. During his social growth, the child naturally learns about many different substantive areas of life, including institutions, events, people, and even the states that individuals experience. The child, through these processes, develops certain underlying predispositions that serve as potentials for his actions. For each such area, the child formulates evaluative judgments and acquires standards that define appropriate functioning in relation to that area. As a result, the child acts in a particular way when relevant circumstances arise. Together, such underlying predispositions and the consequences of these for action constitute an individual's orientations. These orientations, concluded Sherif and Cantril (1945), represent clusters of

phenomenally related social attitudes with their component beliefs, feelings, values, standards, and performances.

Campbell (1967) emphasized that orientation has cognitive, affective, normative, and behavioral components. These components are basically similar to frequently used classifications of attitudinal components. This researcher asserted that when attitudes are considered, often the datum representing the individual's performance in a given situation, or the behavioral component, is not considered as an integral aspect of the attitude. A popular research question was posed: "How well do attitudes and behavior fit?" This question gains deeper perspective when examined within the context of the inter-relation between the several components of an orientation. Campbell briefly defined these:

1) Cognitive--Beliefs and opinions: the child develops certain definitions of the matter; gains information; and formulates his own views or adopts those of others.

2) Affective--Likes or dislikes: he accepts or rejects and has certain feelings about the matter.

3) Normative--Acquisition of certain standards: the individual's views of how he should act; his acceptance of a certain role; the extent to which he judges heightened emotionality to be appropriate; and his development of notions about appropriate ways others should behave.

4) Behavioral--Manifestation of orientation through action: the extent to which the child stoically accepts procedures; the extent to which he carries out standards.

These components are all inextricably intertwined and are not separate or distinct entities. Precisely during childhood when the self-image is most unformed and unstructured, the child emerging into the stage of self-consciousness,

for example, has nothing concrete upon which to base a self-estimate. Hence, according to Sherif and Sherif (1965), with parents, adults, and especially teachers holding a virtual monopoly on communications, these adults' attitudes have particularly powerful significance at this period on the child's life.

Stedman (1948) directed an investigation of knowledges and attitudes of parents and other adults regarding child behavior in everyday situations. The study included 833 respondents consisting of 130 high school students, 499 college women, and 204 non-school attending adults. A measurement instrument was constructed whereby subjects responded to statements concerning areas of child psychology, mental hygiene, child development, parent education and nursery education. The instrument was tested and deemed valid and reliable for use in measuring insights of parents and others into the behavior of children. Data indicated a need for more education in child guidance, especially for parents. College students having had education and home economics courses scored significantly higher, at the .05 level of confidence, than those not having had such courses. Parents did not score higher than non-parents.

Lane (1967) supported the importance of teacher training programs in placing particular emphasis upon the development of child guidance attitudes in prospective teachers and others working with young children. Kinzie (1963) ascertained that the philosophy of child guidance most popular in the United States university nursery school laboratory programs is the democratic-developmental philosophy.

The greater flexibility of behavior during childhood in contrast to later periods of life implies a need for the most favorable environmental conditions including the attitudes of those individuals interacting with children. Barker (1946) declared:

> We are all familiar with the claim that the child is so completely father to the man that society is helpless before the behavior built into some of its members in childhood. According to this view, child psychology is basic not only to the individual, but also to societal adjustment. The hope that the ills of society can be cured in the nursery is undoubtedly strong--the flexibility of behavior in childhood is the basis of hope that the society may finally learn to buid more adequate behavior into all of its children.

Two studies reported the utility of educational experiences for the enhancement of child guidance attitudes related to the democratic-developmental philosophy. However, the evidence presented appeared equivocal. Using the Child Guidance Survey developed by Wiley (1950) and the Parent Attitude Survey designed by Shoben (1949), Walters (1958) found that an introductory course in child development and guidance produced attitude changes, in the direction of the democratic-developmental philosophy, in home economics college students. However, a control group of home economics students not taking the course changed in the same direction and almost to the same degree.

Findings in a follow-up study by Walters (1959) indicated that college seniors in home economics continued changing toward this philosophy following completion of the introductory course. Walters concluded that the whole program of the students, rather than a specific course in child guidance, was influencing attitude change.

Marshall and others (1960), using the Parent Attitude Research Instrument developed by Schaefer and Bell (1958), found that the child guidance attitudes of college students changed while taking an introductory child development course. However, they found that an introduction of the democratic-developmental philosophy of child guidance to the students at the beginning of the course and then an opportunity to observe the use of child guidance techniques implementing this philosophy in a laboratory nursery school increased

attitudes of students who were already highly reflecting the philosophy but decreased such attitudes of students who were initially low.

The concept "attitude" is used in this report to denote the sum total of one's inclinations and feelings, prejudices or biases, preconceived notions, ideas, fears, threats, and convictions about any specified object.

# METHODS

## The Problem

This study investigated the cognitive and affective domains of teaching-learning situations in child development. Based on the assumption that course experiences significantly influence student attitudes and knowledge, a three phase problem with instructional improvement ramifications was designed through which the investigation was conducted. The following summarizes the concerns and states the hypothesis for each phase.

Phase I: A study of the relationship between: student affective and cognitive competencies in child development; course grade and cognitive scores; course grade and affective scores; course grade and grade point average (G.P.A.); G.P.A. and cognitive scores; and grade point average and affective scores.

Hypothesis: A prediction of student performance can be based on a positive correlation of the affective scores (attitudes), cognitive scores (knowledges and understandings), course grade, and G.P.A. at the conclusion of the Child Development I course.

Phase II: An examination of the change in student attitudes toward children during a one-semester, three credit introductory child development course.

Hypothesis: Students enrolled in Child Development I will reflect significantly favorable changes in attitudes toward children over a period of one semester.

Phase III: A study of the differences in the affective domain (attitudes) between students utilizing observation of children and students not utilizing observation.

Hypothesis: Students experiencing observation while engaged in the Child Development I course (experimental) will have a more favorable change in attitudes toward children than students in the course without the observation experience (control).

The methodology herein specifies the variables, instrumentation, sampling, research design and statistical procedure utilized in testing the above hypothesis.

VARIABLES: This study focused on two major variables effecting the cognitive and affective domains: the child development course, and observation experiences while studying child development.

INSTRUMENTATION: "THE INVENTORY OF ATTITUDES ON CHILD GUIDANCE" (IACG) was selected for the purpose of measuring student attitudes toward children before and after the course experiences in Child Development. This instrument was designed by Kinzie (1962) to measure attitudes toward children reflective of the democratic-developmental philosophy. (For details of the development of the IACG and tests for validity and reliability of the separate scales, see Kinzie, 1963.) For use in this study. the IACG was revised to contain a total of thirty-six items subdivided into six scales with six items on each scale. The scale titles and definitions are summarized:

1. UNDERSTANDING THE CHILD--Each child is viewed as a worthwhile individual regardless of physical, mental, and/or emotional limitations. The child is neither pushed nor forced to measure up to preconceived standards. The adult views things and circumstances from the child's point of view.

2. REFLECTING AND ACCEPTING THE CHILD'S FEELINGS--The adult reflects, verbally, the feelings which the child is expressing through behavior or verbalization, recognizing that by doing so the child is able to more readily recognize and accept his own feelings. The adult recognizes the more favorable results of allowing a child to say or act out how he feels rather than suppress feelings within himself. The adult is not threatened by the child's expression of negative feelings.

3. REDIRECTING UNDESIRABLE BEHAVIOR--The child is allowed to accomplish his original purpose in an acceptable manner without being shamed or blamed, and without being made to feel guilty. The adult indicates the appropriate behavior to the child.

4. ENCOURAGING VERBALIZATION--The child is given many opportunities for free, creative-type dramatic play and activity, allowing for free verbal expression of feelings. The adult listens attentively and sincerely to the child's suggestions.

5. ENCOURAGING INDEPENDENCE AND INITIATIVE--The adult observes the child and waits before offering help. The adult plans for flexibility through free play periods. The child is allowed to make choices concerning activities and decisions which affect him.

6. ENCOURAGING CREATIVITY--The child is provided a wide variety of self-expression materials and is not required to produce a finished product. The child may use a variety of media. The adult recognizes that the process of working with materials and expression of oneself is of greatest importance for the child.

Examples of items used on each scale included such statements as "A child's misbehavior is usually a result of misunderstanding, anger, fear, or hurt"; "Adults should not permit frequent crying in a child"; and "Punishment may teach a child what not to do, but it does not teach him what to do." To such items, respondents were requested to check "strongly agree," "mildly agree," "mildly disagree," or "strongly disagree." A score was assigned for each item on the six attitude scales to denote amount of knowledge and experience for each of the thirty six components in the inventory. Each response was scored 1, 2, 3, or 4 with a high score indicating a greater degree of agreement with the democratic-developmental philosophy of child guidance. For scoring purposes, scores on certain items were reversed where strong disagreement with the statement denoted agreement with the philosophy. Summated scores were obtained by totalling item scores for each scale.

The D-V CHILD DEVELOPMENT INVENTORY (DV-CDI) was developed by Draper and Vansickle (1969) to operationalize knowledges and understanding in seven areas of Child Development. The instrument was designed to measure the level of understanding based on factual information. A total of forty-two items were subdivided into seven scales, each containing six multiple choice items. The scale titles and definitions are summarized:

1. LANGUAGE DEVELOPMENT--Receptive and expressive communication activities.

2. MOTOR DEVELOPMENT--Developmental direction, manipulation, locomotion, differentiation, integration, and cumulative experiences.

3. PHYSCIAL DEVELOPMENT--Growth, maturation, heredity and individual variation.

4. PROBLEM SOLVING--Progressive differentiation and integration of concepts.

5. SENSORY PERCEPTION--Sensitivity and response capabilities (sensorimotor responses and reflex activities).

6. PRENATAL DEVELOPMENT--Development from conception to birth.

7. SELF-CONCEPT--Self and social awareness and the development of trust and self confidence.

Items used on each scale included such statements as:

"During the Child's early years, motor development means:

____A. As a child grows, certain parts of his body mature and he begins to control functions such as walking, talking and feeding himself without help from adults.
____B. The child's control over most parts of his body does not really begin until after he starts school.
____C. At age 5, the child begins to develop more control over parts of the body for throwing, catching, writing, hammering, etc.
____D. At 4 or 5 years of age, the child begins to gain control over parts of his body used for walking, running, swimming, climbing, feeding and dressing."

Respondents were requested to rank the four choices, marking 1 for most accurate; 2 and 3 for partially accurate and 4 for the incorrect answer.

SAMPLING: A random sampling included one hundred students enrolled in the Child Development I course at Stout State University. Data for measuring attitude change were collected from the above subjects before and after the course. Data for measuring child development knowledge and understanding were collected from the same subjects at the end of the course. Data for comparing affective and cognitive competencies between experimental and control groups were collected from forty of the above subjects; twenty experimental and twenty control.

DESIGN AND STATISTICAL TECHNIQUES: The operational null hypothesis and statistical treatment of data for each phase of the study included the following:

Phase I: Null Hypothesis: The course will effect no significant relationship between the attitudes reflected by the IACG, the knowledge and understanding reflected by the DV-CDI, the course grade, and the university G.P.A.

Pearson's Product Moment Correlation Coefficient was judged as being an appropriate statistic for treatment of data. This statistic permitted measurement of a relationship between the four factors respectively. Scores from the DV-CDI, IACG, course grades, and G.P.A., were tabulated and the correlations computed.

Phase II: Null Hypothesis: There will be no significant change in attitudes toward children for students enrolled in Child Development I over the semester as reflected on the IACG.

A "t" test was utilized to treat the data. This statistic permitted a comparison of pretest and post test scores on the IACG to determine significant attitude change toward children. Initial and final scores from six

scales on the IACG were tabulated and the "t" test computed for Phase II of this study.

Phase III: Null Hypothesis: The observation experiment will effect no attitude difference between students having an observation experience and those not having an observation experience.

An analysis of variance was selected as the statistic for treatment of data. A two-factor mixed design of subjects over groups by trials permitted:

1. Comparison of the interaction effects between trials by experimental versus control situation on the six scales, respectively.
2. Comparison of the differences in the attitude change between the experimental and control groups for each of the six scales, respectively; and
3. Evaluation of the changes in attitudes shown by the subjects during the trial period of one semester on the six scales, respectively.

Both initial and final measurements were taken in order to give the research a more complete analysis of the problem.

Blocking the data consisted of the following designs:

PHASE I

| IACG | G.P.A. | DV-CDI | COURSE GRADE |
|---|---|---|---|
| N = 100 | N = 100 | N = 100 | N = 100 |

PHASE II

| PRE | POST |
|---|---|
| N = 50 | N = 50 |

PHASE III

| | CONTROL | EXP. |
|---|---|---|
| Pre | N = 20 | N = 20 |
| Post | N = 20 | N = 20 |

Inasmuch as this study was exploritory and due to the paucity of research in the area of students attitudes toward children and their knowledge of child development, the .05 level of significance was selected as the basis for rejection of the null hypotheses. Rejection of the null hypotheses at the .05 level of significance was interpreted as:

1. an indication that the child development course was successful in changing attitudes as a by-product of knowledge and understanding in child development;
2. that a positive relationship does exist between attitudes toward children and knowledge and understanding of child development, course grade and grade point average and;
3. that observation experiences have a significant effect on changing student attitudes while studying child development.

## FINDINGS AND ANALYSIS

The purpose of the statistical analyses was to test the null hypotheses in Phases I, II, and III. These included:

Phase I. Students in the child development course will reflect no positive correlation of the affective (attitudes), and cognitive scores (knowledge and understandings); course grade and cognitive scores; course grades and affective scores;course grades and G.P.A.; G.P.A. and cognitive scores; and G.P.A. and affective scores at the conclusion of the Child Development I course;

Phase II. Students in the Child Development course will reflect no significant changes in attitudes toward children over a period of one semester;

Phase III. Students involved in observation experiences while engaged in the child development course (experimental) will have no greater change in attitudes toward children than students in the course without the observation experience (control).

Data collected were analyzed for the specific purposes of:

1. Studying the relationships of:
    a. Course grades to cumulative G.P.A.
    b. Course grades to scores on the IACG
    c. Course grades to scores on the DV-CDI
    d. G.P.A. to the DV-CDI
    e. G.P.A. to the IACG
    f. DV-CDI to the IACG

2. Comparing attitude change, and the direction of change in relation to the democratic - developmental philosophy of child guidance, for subjects over a period of one semester in a child development course; and
3. Comparing interaction and main effects of the experimental (observation) versus control (non-observation) situations over one semester.

The analysis of data with discussion of findings is presented within the framework of the three phases undertaken in the study.

Phase I

The Pearson's Product Moment Correlation was applied to data in the first phase of the study to test the null hypothesis that students studying child development in the introductory course will not reflect positive correlations, respectively, of course grade with G.P.A.; course grade with cognitive scores; course grade with affective scores; G.P.A. with cognitive scores; G.P.A. with affective scores and cognitive scores with affective scores. Table I presents a summary of these correlations. Analysis revealed a greater positive relationship between course grade and G.P.A. than between any other combinations of the factors tested. The course grade and the G.P.A. when correlated with the above factors, respectively, resulted as more powerful predicters of student performance than either the IACG or DV-CDI. The null hypothesis of no correlation was rejected at the .05 level for course grade with G.P.A. ($r = .69$), G.P.A. with DV-CDI ($r = .47$), course grade with DV-CDI ($r = .41$), and course grade with IACG ($r = .31$). Although the correlations of .24 between G.P.A. and the IACG, and .21 between IACG and DV-CDI were positive, neither was significant at the .05 level upon application of the critical ratio z.

TABLE I

SUMMARY OF CORRELATIONS FOR PHASE I

| Variables | Pearson's r | Critical Ratio z | P |
|---|---|---|---|
| Course Grade: G.P.A. | .69 | 4.83 | <.05 |
| G.P.A.: DV-CDI | .47 | 3.29 | <.05 |
| Course Grade: DV-CDI | .41 | 2.87 | <.05 |
| Course Grade: IACG | .31 | 2.17 | <.05 |
| G.P.A.: IACG | .24 | 1.68 | NS |
| DV-CDI: IACG | .21 | 1.47 | NS |

## Phase II

The "t" analysis was used to test the null hypothesis that students studying child development within a cognitive orientation in an introductory child development course will reflect no significant change in attitudes toward children over one semester. The IACG post test group mean score was significantly higher than the IACG pretest group mean score, thus reflecting greater acquired agreement with the democratic-developmental philosophy of child guidance. The null hypothesis of no difference in attitudes between trials was rejected at the .001 level of significance with a "t" of 5.08 at 99df.

## Phase III

Data collected by the IACG were analyzed and reported for six areas of child guidance. The independent variables, scales 1 through 6, measured attitudes in the respective areas. Presentation of data for each scale is included in the third phase of the study. Figure 1 explicates, graphically, the comparison of experimental and control group scores prior to and following the child development course. Careful assessment of the graph illustrates attitude change for each scale, as reflected by the interaction and main effects of a two factor mixed design of subjects over groups by trials analysis of variance.

### Scale I, Understanding the Child

Initial measurement of child development students' attitudes toward child guidance by the independent variable, Understanding the Child, indicated a significant difference between the experimental and control group mean scores. Both groups increased scores over the semester in the direction of greater agreement with the democratic-developmental philosophy of child guidance, thus indicating no real difference between experimental and control groups during the experiment.

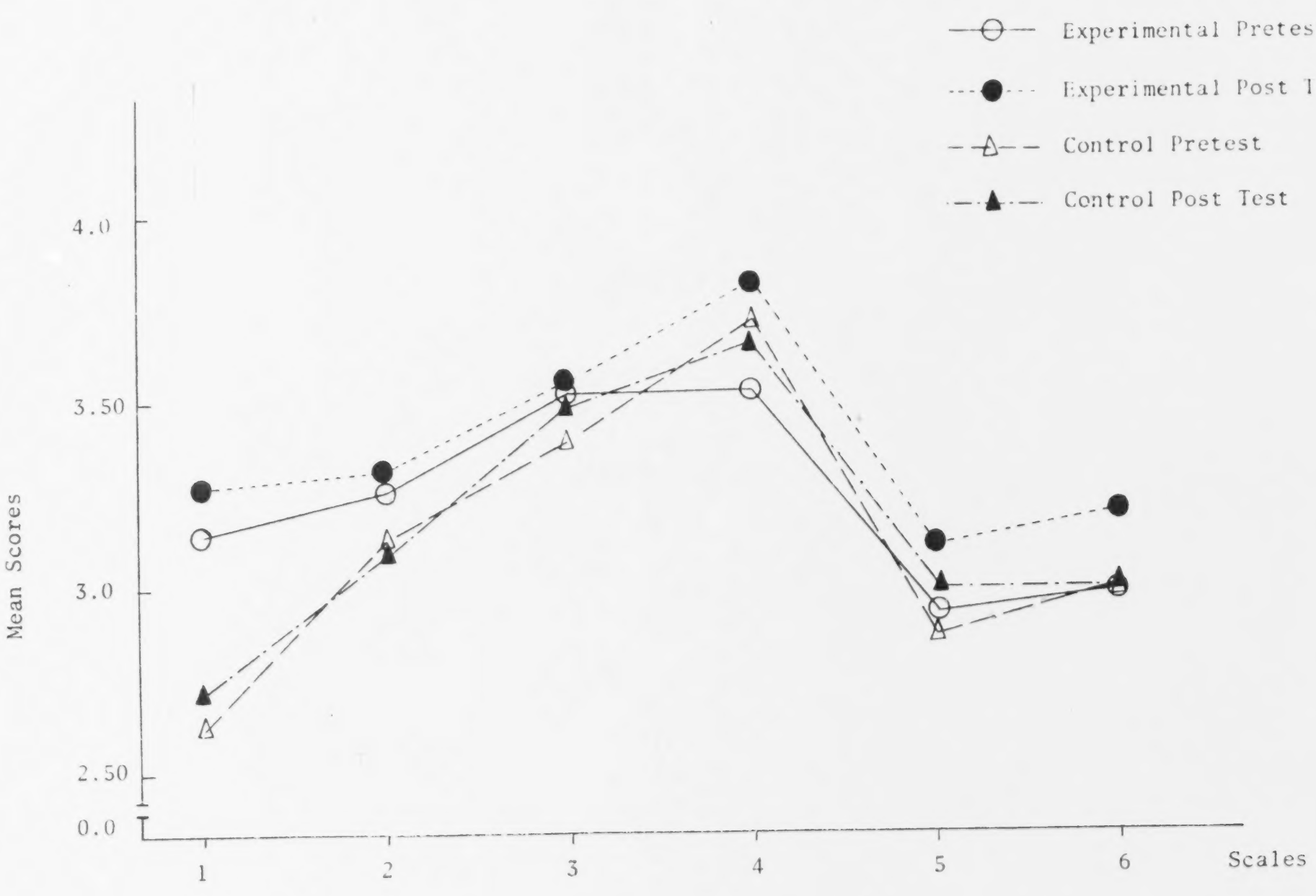


Figure 1

Pretest and Post Test Scores on the Inventory of Attitudes on Child Guidance for Experimental and Control Groups

TABLE II

ANALYSIS OF VARIANCE COMPARING EXPERIMENTAL AND CONTROL SUBJECTS OVER THE TRIAL PERIOD OF THE CHILD DEVELOPMENT EXPERIMENT

Scale 1, Understanding the Child

| Source | DF | Sum of Squares | Mean Square | F Ratio | Probability |
|---|---|---|---|---|---|
| Between all Subjects | 39 | 12.149 | | | |
| Experimental Versus Control Conditions | 1 | 5.968 | 5.968 | 36.613 | <.001 |
| Error | 38 | 6.181 | .163 | | |
| Within all Subjects | 40 | 3.228 | | | |
| Pretest versus Post Test | 1 | .292 | .292 | 3.792 | NS |
| Conditions X Trials | 1 | .001 | .001 | .013 | NS |
| Error | 38 | 2.935 | .077 | | |
| Total | 79 | 15.377 | | | |

F 1,138 (.001) = 12.61; F 1,138 (.01) = 7.31; F 1,138 (.05) = 4.08

The two-factor analysis of variance resulted in no significant interaction effect of experimental versus control conditions by the trial period, thus failing to reject the null hypothesis of no interaction effect. Apparently, the magnitude of difference between experimental and control groups was not great enough to effect significant change when the two variables were analyzed in combination.

The null hypothesis that no difference would occur between experimental and control conditions was rejected at the .001 level by the analysis of variance statistic. When studied graphically (figure 1) however, it can be seen that the difference between experimental and control groups remained proportionally the same from pretest to post test level. No significant difference was found between trials for scale 1, thus the null hypothesis that no difference over the trial period would occur was not rejected. Table II summarizes the comparison of Scale 1 mean squares for the interaction terms and main effects from pretest to post test period. Thus, for the area of understanding the child, subjects having had the experimental observation experience while studying child development did not change attitudes significantly when compared with subjects not having the observations.

Scale 2, Reflecting and Accepting the Child's Feelings

The analysis of variance computed on data for Scale 2, summarized in Table III, revealed no significant F ratios for interaction or main effects, thus, no significant change in subjects' attitudes in the area of reflecting and accepting children's feelings occured by the conclusion of the semester's experience. The null hypotheses were not rejected for Scale 2.

Scale 3, Redirecting Undesirable Behavior

The F ratios in Table IV for Scale 3 reveal no significant difference in interaction effects of the experimental group's attitude change from

TABLE III

ANALYSIS OF VARIANCE COMPARING EXPERIMENTAL AND CONTROL SUBJECTS OVER THE TRIAL PERIOD OF THE CHILD DEVELOPMENT EXPERIMENT

Scale 2, Reflecting and Accepting the Child's Feelings

| Source | DF | Sum of Squares | Mean Square | F Ratio | Probability |
|---|---|---|---|---|---|
| Between all Subjects | 39 | 9.795 | | | |
| Experimental Versus Control Conditions | 1 | .615 | .615 | .254 | NS |
| Error | 38 | 9.180 | .242 | | |
| Within All Subjects | 40 | 3.777 | | | |
| Pretest Versus Post Test | 1 | .013 | .013 | .133 | NS |
| Conditions X Trials | 1 | .032 | .032 | .327 | NS |
| Error | 38 | 3.732 | .098 | | |
| Total | 79 | 13.572 | | | |

F 1,138 (.001) = 12.61; F 1,138 (.01) = 7.31; F 1,138 (.05) = 4.08

TABLE IV

ANALYSIS OF VARIANCE COMPARING EXPERIMENTAL AND CONTROL SUBJECTS OVER THE TRIAL PERIOD OF THE CHILD DEVELOPMENT EXPERIMENT

Scale 3, Redirecting Undesirable Behaviors

| Source | DF | Sum of Squares | Mean Square | F Ratio | Proba-bility |
|---|---|---|---|---|---|
| Between all Subjects | 39 | 9.946 | | | |
| Experimental Versus Control Conditions | 1 | .258 | .258 | 1.012 | NS |
| Error | 38 | 9.688 | .255 | | |
| Within all Subjects | 40 | 4.063 | | | |
| Pretest Versus Post Test | 1 | .080 | .080 | .769 | NS |
| Conditions X Trials | 1 | .029 | .029 | .279 | NS |
| Error | 38 | 3.954 | .104 | | |
| Total | 79 | 14.009 | | | |

F 1,138 (.001) = 12.61; F 1,138 (.01) = 7.31; F 1,138 (.05) = 4.08

pretest to post test when compared to the control group's attitude change over the same trial period; no significant difference between experimental and control conditions; and no significant difference between pretest and post test scores. As a result of the experimental situation, failure to reject the null hypotheses occured at the .05 level of significance for all three terms--interaction, between conditions, and between trials. Differences which were manifest in attitudes toward redirecting behavior, held by the experimental and control groups prior to and following the experiment, were thus ascribed, by the analysis of variance, to natural variability.

Scale 4, Encouraging Verbalization

Table V summarizes the analysis of variance data for Scale 4. Computations revealed significant difference, at the .05 level, for interaction effects of treatments over the trial period, thus rejecting the null hypothesis of no interaction effects. However, when the main effects were analyzed independently, there was neither significant difference between treatments nor between trials; thus the null hypotheses for the main effects could not be rejected at the .05 level. Differences in attitudes in the area of language development occurred only on the basis of the combined effect of type of experience and trial period.

Scale 5, Encouraging Independence and Initiative

The analysis of variance for Scale 5 revealed no difference between interaction effects of trials by type of experience, thus attributing to natural variability any attitude differences. Rejection of the null hypothesis of no interaction effects failed at the .05 level. Between trials, pretest versus post test, significant difference at the .01 level was computed with an F ratio of 9.872 on 1, 38df. There was a gain in attitude scores over the trial periods when considering the experimental

TABLE V

ANALYSIS OF VARIANCE COMPARING EXPERIMENTAL AND CONTROL SUBJECTS OVER THE TRIAL PERIOD OF THE CHILD DEVELOPMENT EXPERIMENT

Scale 4, Encouraging Verbalization

| Source | DF | Sum of Squares | Mean Square | F Ratio | Probability |
|---|---|---|---|---|---|
| Between All Subjects | 39 | 8.262 | | | |
| Experimental Versus Control Conditions | 1 | .006 | .006 | .028 | NS |
| Error | 38 | 8.256 | .217 | | |
| Within all Subjects | 40 | 4.361 | | | |
| Pretest Versus Post Test | 1 | .309 | .309 | 3.433 | NS |
| Conditions X Trials | 1 | .614 | .614 | 6.822 | $<.05$ |
| Error | 38 | 3.438 | .090 | | |
| Total | 79 | 12.623 | | | |

F 1,138 (.001) = 12.61; F 1,138 (.01) = 7.31; F 1,138 (.05) = 4.08

TABLE VI

ANALYSIS OF VARIANCE COMPARING EXPERIMENTAL AND CONTROL SUBJECTS OVER THE TRIAL PERIOD OF THE CHILD DEVELOPMENT EXPERIMENT

Scale 5, Encouraging Independence and Initiative

| Source | DF | Sum of Square | Mean Square | F Ratio | Probability |
|---|---|---|---|---|---|
| Between all Subjects | 39 | 11.946 | | | |
| Experimental Versus Control Conditions | 1 | .029 | .029 | .092 | NS |
| Error | 38 | 11.917 | .314 | | |
| Within all Subjects | 40 | 3.746 | | | |
| Pretest Versus Post Test | 1 | .770 | .770 | 9.872 | < .01 |
| Conditions X Trials | 1 | .001 | .001 | .013 | NS |
| Error | 38 | 2.975 | .078 | | |
| Total | 79 | 15.692 | | | |

F 1,138 (.001) = 12.61; F 1,138 (.01) = 7.31; F 1,138 (.05) = 4.08

and control subjects as a composite group. The null hypothesis that no difference will occur over the semester was rejected at the .01 level. The null hypothesis of no difference between treatments, however, was not rejected at the .05 level. Table VI summarizes comparison of mean squares for the independent variable, Encouraging Independence and Initiative.

Scale 6, Encouraging Creativity

An analysis of variance resulted in significant difference for the interaction effects on Scale 6. An F ratio of 4.157 on 1, 38df, reported in Table VII, indicated a significant difference at the .05 level between attitudes of the experimental and control groups from the pretest to the post test period. The null hypothesis of no interaction effect was rejected at the .05 level. When the main effects were considered independently, significant difference did not occur betwen conditions or between trials, thus rejection of the null hypotheses of no differences between main effects failed at the .05 level.

TABLE VII

ANALYSIS OF VARIANCE COMPARING EXPERIMENTAL AND CONTROL SUBJECTS OVER THE TRIAL PERIOD OF THE CHILD DEVELOPMENT EXPERIMENT

Scale 6, Encouraging Creativity

| Source | DF | Sum of Squares | Mean Square | F Ratio | Probability |
|---|---|---|---|---|---|
| Between all Subjects | 39 | 10.448 | | | |
| Experimental Versus Control Conditions | 1 | .101 | .101 | .371 | NS |
| Error | 38 | 10.347 | .272 | | |
| Within All Subjects | 40 | 2.280 | | | |
| Pretest Versus Post Test | 1 | .117 | .117 | 2.294 | NS |
| Conditions X Trials | 1 | .212 | .212 | 4.157 | $< .05$ |
| Error | 38 | 1.951 | .051 | | |
| Total | 79 | 12.728 | | | |

F 1,138 (.001) = 12.61; F 1,138 (.01) = 7.31; F 1,138 (.05) = 4.08

## CONCLUSION AND SUMMARY

The primary purpose of this study was to statistically determine the predictive power of affective and cognitive variables, measure the students' affective and cognitive levels of development, and examine the relationship of the affective domain to the cognitive domain of students. The project included changing the format of the existing course, a redesign of the structure of the lecture and laboratory situations and the development of improved instructional media.

An underlying assumption of this study was that students, through the use of modified instructional packages and within the framework of a cognitive orientation, would significantly change attitudes toward children during the Child Development I course.

Data were obtained from 100 randomly selected subjects, in the Child Development I course at Stout State University. Participants were students with sophomore or above standings.

The INVENTORY OF ATTITUDES ON CHILD GUIDANCE was used to measure attitudes in six areas of child guidance before and after the course. The DV-CHILD DEVELOPMENT INVENTORY was developed and used to measure cognitive levels of the subjects in seven areas of child development.

## CONCLUSIONS

Three phases of investigation were undertaken to accomplish the objectives of this project. Conclusions for each of the phases are summarized:

Phase I was a study of the relationships between four variables, respectively: course grade, grade point average, DV-CDI and IACG. The

introductory child development course, planned to serve as a foundation for increasing skills and competencies in the affective, cognitive and psychomotor domains, evidenced that students' cognitive performances in child development were significantly correlated with course grades and grade point averages. These positive correlations of course grade and grade point average with the child development inventory, respectively, support the relevance of the child development instrument to the course. A significant position correlation between the IACG and the course grade reflect consistency between the course and attitude change toward children. The analysis, however, did not support the child guidance attitude inventory as a significant predictor of students' cognitive performance.

Phase II was an examination of the change in child guidance attitudes during an introductory child development course. Child guidance attitudes were measured prior to and following enrollment in the course. Comparison of the group mean scores indicated a significant change in child guidance attitudes by the class as a whole. The change reflected an increase in agreement with the democratic-developmental philosophy of child guidance. These data inferred the effectiveness of changing student attitudes toward child guidance by using a cognitively oriented study of child development.

Phase III was a study of the differences in child guidance attitudes between an experimental (observation) and a control (non-observation) group of students. This phase was designed to determine whether or not the experience of observing children while studying child development would effect a significant change in child guidance attitudes. Data were examined to determine the extent of child guidance attitude change between experimental and control groups. The experimental subjects engaged in observation of children during the course while the control subjects engaged in the same

course without the observation. The evaluation was based on results from six independent variables of the IACG. Conclusions are summarized for the six scales:

Scale 1: Understanding the Child - The attitude change resulting from the combined effect of the child development course and an observation experience was not statistically significant when the attitudes of the experimental group were compared with those of the control group. Neither the trial period, nor the experimental situation, respectively, effected changes in attitudes when the experimental and control groups were compared. The child development course, exclusive of the observation experiment, appears to have had some influence on both the experimental and control groups' understandings of children.

Scale 2: Reflecting and Accepting the Child's Feelings - There were no significant differences in attitude changes of students on Scale 2 when experimental and control groups were compared. Neither the child development course nor the observation experience appear to have influenced the students' attitudes in this area.

Scale 3: Redirecting Undesirable Behavior - The child development course, with or without the observation experiment appeared to have no influence on changing students' attitudes in the area of redirecting undesirable behavior.

Scale 4: Encouraging Verbalization - In the area of language development, the only significant change in attitudes occured as a result of the combined effect of the observation experience and the course. The experimental group indicated a significant change in attitudes in the area of language development.

Scale 5: Encouraging Independence and Initiative - By the end of the course, the experimental and control groups changed attitudes significantly in the area of encouraging independence and initiative. The course appears to have influenced attitude change exclusive of the observation experience.

Scale 6: Encouraging Creativity - The measurement of attitudes with this independent variable indicated that the experimental group reflected a significantly higher score than the control group. The observation experience appears to have had a significant influence upon the student attitudes toward encouraging creativity in a manner conductive to creative expression through various media and processes of the child's choice rather than promoting creative expression by focusing on a finished product.

There appears to be relatively little attitude change which can be ascribed to the experience of observing children while studying child development when compared with the influence of the course without this experience. Thus, the findings of Phase III of this study, generally, do not support the hypothesis that a change in attitude will occur as a result of an observation experience. A ceiling effect could possibly apply to the lack of measured change exhibited on some scales because the attitude scores of students were already at relatively high levels.

The C.O.R.D. project provided implications for restructuring the Child Development I course in order to more effectively and efficiently meet the course objectives. In an attempt to focus upon specific areas of development, and evidences of children's development in these areas, the course design as implemented in this study was modified. The new design incorporated, on a weekly basis, two one-hour lectures serving three hundred or more students, one hour of laboratory-discussion groups of twenty to twenty-five students for participation, interaction and instruction and one hour

of planned observation of children. The observation laboratory was designed to give direction and purpose for observations followed by discussion and evaluation.

In view of the results of this study, these investigators agree with Fishbein (1967) who reported that while investigators have argued that traditional attitude measures will not predict behavior, they have usually questioned the measurements of attitude rather than the assumption of an attitude-behavior relationship. They also argue that most traditional measures of attitude are oversimplified and fail to consider the individual's cognitions and conations. The investigators of this study do not attempt to solve the attitude-behavior problem by expanding the definition of attitute to include the affective, cognitive and conative components. They do, however, consider that the interaction of these components are significant to attitude formation and that attitude change must be considered in planning learning activities in the realm of their theoretical and practical application.

Educators have arrived at a point when they must accept the challenge to go beyond measuring and understanding attitude change to that of using cognition to produce attitude change. Based on the premise that beliefs and opinions are symbols of attitude and that these serve as a means for measuring attitude change, learning experiences must be planned to effect change in preconceived ideas toward an object or situation. Continuous assessment of course design and content in relation to desired student performance is imperative if instructional improvement is to be accomplished. To effect cognitive and/or affective change, courses and experiences must be planned with clearly defined goals and in the context of behavioral objectives.

## SUMMARY

The primary purpose of this study was to statistically determine the predictive power of affective and cognitive variables, measure the students' affective and cognitive levels of development and examine the relationship of the affective domain to the cogntive domain of students. The underlying assumption of the study was that through the use of modified instructional packages and within the framework of cognitive orientation, students would significantly change attitudes toward children during an introductory child development course.

Data were collected from 100 randomly selected students of sophomore or above standing enrolled in the Child Development I course at Stout State University. Instrumentation included the INVENTORY OF ATTITUDES ON CHILD GUIDANCE (Kinzie, 1963) and the DV-CHILD DEVELOPMENT INVENTORY (Draper and Vansickle, 1969). Data were also collected from the course grades and the university cumulative grade point averages.

A three-phase study permitted statistical treatment of data for testing the above assumption. The results supported the hypothesis that student performance in the course can be predicted from the DV-CHILD DEVELOPMENT INVENTORY. Significant positive correlations occurred between the course grade and the DV-CDI, the course grade and grade point average, the DV-CDI and the grade point average, and the INVENTORY OF ATTITUDES ON CHILD GUIDANCE and the course grade. No significant correlation occurred between the DV-CDI or the grade point average with the Inventory of Attitudes on Child Guidance, respectively.

Data analysis supported the hypothesis that a cognitively oriented course would have a significant influence on changing student attitudes. Comparison of pretest and post test attitude scores reflected a significant change in child guidance attitudes by the class as a whole.

In general, data analysis did not support the hypothesis that an experience of observing children while studying child development would significantly influence students' child guidance attitudes. No significant attitude changes occured in the areas of understanding the child, reflecting and accepting the child's feelings, redirecting undesirable behavior, encouraging independence and initiative, and encouraging verbalization. There was a significant change in student attitudes in the area of encouraging creativity by those students who had an observation experience.

# APPENDIX

PERSONAL DATA SHEET

Class _____ Date _____

1. Name _____ Date of Birth _____
   Last First Middle Mo/Day/Yr

2. School address _____ Telephone _____

3. Home address _____ Telephone _____

4. Age at nearest birthday _____

5. Sex: 1. _____Male
   2. _____Female

6. What is your religious preference?
   1. _____Catholic
   2. _____Jewish
   3. _____Protestant: Denomination
      _____
   4. _____Other: Please specify
      _____

7. How would you describe yourself religiously?
   1. _____Very devout
   2. _____Devout
   3. _____Slightly religious
   4. _____Indifferent
   5. _____Antagonistic

8. Year in college:
   1. _____Freshman
   2. _____Sophomore
   3. _____Junior
   4. _____Senior
   5. _____Graduate
   6. _____Special

9. In what size of community did you live most of the time while you were growing up?
   1. _____Rural area (open country, farm)
   2. _____Town (under 20,000 population)
   3. _____City (20,000-100,000)
   4. _____Large city (more than 100,000)

10. Before you were 15 years old, what state or county did you live in most of the time? _____

11. Your father's name _____ Age _____
    Address _____
    Street City State
    Birthplace _____
    City State
    Religion _____

12. Your mother's name _____ Age _____
    Address _____
    Street City State
    Birthplace _____
    City State
    Religion _____

13. Presently you are:

| | | | | | |
|---|---|---|---|---|---|
| 1. | ____Married | 5. | ____Formally engaged | 8. | ____Occasional dating |
| 2. | ____Widowed | 6. | ____Have "understanding" engagement | 9. | ____Frequent dating |
| 3. | ____Divorced | 7. | ____Going steady | 10. | ____Not dating |
| 4. | ____Separated | | | | |

14. Father's education 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18,
15. Mother's education 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18

16. What is (was) your father's occupation?
1. ____Professional (doctor, lawyer, minister, teacher)
2. ____Business (owner or manager)
3. ____Public service (in gov't, local, state or national)
4. ____Clerical work (in business or public work)
5. ____Skilled worker
6. ____Semi-skilled worker
7. ____Unskilled worker
8. ____Farm owner, manager
9. ____Farm labor
10. ____Other (what?)_____

17. How would you rate your parents, religiously, during the time you were growing up?

| Your Mother | | Your Father | |
|---|---|---|---|
| 1. | ____Very devout | 1. | ____Very devout |
| 2. | ____Devout | 2. | ____Devout |
| 3. | ____Slightly religious | 3. | ____Slightly religious |
| 4. | ____Indifferent | 4. | ____Indifferent |
| 5. | ____Antagonistic to religion | 5. | ____Antagonistic to religion |

18. Up to the time you were 15, was your mother employed outside the home?
1. ____Full Time
2. ____Part time
3. ____Not at all
4. ____Mother died when I was very young

19. If your mother worked outside the home:
How old were you when she started working? _____ What type of work did she do? _____

20. How would you describe the dominance pattern between your father and mother in the home?
1. ____Father was definitely the dominant one
2. ____Father tended to be dominant
3. ____It was about 50-50
4. ____Mother tended to be dominant
5. ____Mother was definitely the dominant one
6. ____I was too young to know when home was broken

Comments_____

21. What was your relationship with your parents up to the time you were 15?

With Your Father

1. _____Very close
2. _____Close
3. _____Somewhat close
4. _____Not close
5. _____Distant
6. _____I do not remember

22. With your mother

1. _____Very close
2. _____Close
3. _____Somewhat close
4. _____Not close
5. _____Distant
6. _____I do not remember

23. What is your evaluation at present of your personality or personal attractiveness?

1. _____Superior
2. _____Above average
3. _____Average
4. _____Below average
5. _____Poor

HD/MWV
SSU/FALL '69

Class Number _____

INVENTORY OF ATTITUDES ON CHILD GUIDANCE
(Revised)

Please read each of the statements below and then rate them as follows:

Strongly Agree  Mildly Agree  Mildly Disagree  Strongly Disagree

There are no right or wrong answers, so answer according to your opinion. It is very important to the study that all questions be answered. Some of the statements will seem alike but all are necessary to show slight differences.

_____1. By expecting adult behavior from a small child, we encourage the development of maturity. A) Strongly Agree; B) Mildly Agree C) Mildly Disagree; D) Strongly Disagree.

_____2. Neither parents nor teachers should accept the feelings of the child who is deliberately bad. A) Mildly Agree; B) Mildly Disagree; C) Strongly Disagree; D) Strongly agree

_____3. Punishment may teach a child what not to do, but it does not necessarily teach him what he should do. A). Mildly Disagree; B) Strongly Disagree; C) Strongly Agree; D) Mildly Agree.

_____4. Children should be allowed to explain why they disagree if they feel their own ideas are better. A) Strongly Disagree; B) Strongly Agree; C) Mildly Agree; D) Mildly Disagree.

_____5. A parent or teacher should help a child when he asks for it, even though the child could accomplish the task alone. A) Strongly Agree; B) Mildly Agree; C) Mildly Disagree; D) Strongly Disagree.

_____6. Whatever a child creates generally has meaning for him if he is permitted to freely express himself. A) Mildly Disagree; B) Strongly Disagree; C) Mildly Agree; D) Strongly Agree.

_____7. Too much acceptance of a child encourages him to continue his bad habits. A) Mildly Disagree; B) Strongly Disagree; C) Strongly Agree; D) Mildly Agree.

_____8. If a child knows that an adult understands how he feels it makes him less anxious. A) Strongly Disagree; B) Strongly Agree; C) Mildly Agree; D) Mildly Disagree.

_____9. An adult should help children find acceptable ways of expressing negative feelings. A) Strongly Agree; B) Mildly Agree; C) Mildly Disagree; D) Strongly Disagree.

_____10. A child has a right to his own point of view and ought to be allowed to express it. A) Mildly Agree; B) Mildly Disagree; C) Strongly Agree; D) Strongly Disagree.

_____11. If a parent or teacher sees that the child is doing an activity very slowly, the child should be shown immediately what to do and how to do it. A) Mildly Disagree; B) Strongly Disagree; C) Strongly Agree; D) Mildly Agree.

_____12. Patterns and tracing materials should be provided for the child to use in art work. A) Strongly Disagree; B) Strongly Agree; C) Mildly Agree; D) Mildly Disagree.

_____13. Boys should be taught early to "take it like a man" when they are hurt. A) Strongly Agree; B) Mildly Agree; C) Mildly Disagree; D) Strongly Disagree.

_____14. When a child gets a bump or bruise, it is helpful to tell him that you know it hurts. A) Mildly Agree; B) Mildly Disagree; C) Strongly Disagree; D) Strongly Agree.

_____15. When a child is angry, he should be given a chance to let off steam in some harmless activity. A) Mildly Disagree; B) Stongly Disagree; C) Strongly Agree; D) Mildly Agree.

_____16. A child can get rid of some of his "Bad" feelings by being allowed to talk about them. A) Strongly Disagree; B) Strongly Agree; C) Mildly Agree; D) Mildly Disagree.

_____17. It is better for a child to fall from a tree and break a leg than to be afraid of doing anything without the approval of an adult. A) Strongly Agree; B) Mildly Agree; C) Mildy Disagree; D) Strongly Disagree.

_____18. A child should be encouraged to produce a neat finished product when doing art work. A) Mildly Agree; B) Mildly Disagree; C) Strongly Disagree; D) Strongly Agree.

_____19. Adults should know something about the ability of the child so they do not expect too little from him. A) Mildly Disagree; B) Strongly Disagree; C) Strongly Agree; D) Mildly Agree.

_____20. Parents and teachers should try to concentrate on what a child is doing instead of how he feels. A) Strongly Disagree; B) Strongly Agree; C) Mildly Agree; D) Mildly Disagree.

_____21. When society does not approve of things a child does, an adult should help the child find acceptable ways of achieving his original purposes. A) Strongly Agree; B) Mildly Agree; C) Mildly Disagree; D) Strongly Disagree.

_____22. When a child is in trouble, he should not be punished for talking about it with his teachers or parents. A) Mildly Agree; B) Mildly Disagree; C) Strongly Disagree; D) Strongly Agree.

_____23. Little arguements and fights that break out among children are best handled by the children themselves. A) Mildly Disagree; B) Mildly Agree; C) Strongly Disagree; D) Strongly Agree.

_____24. Drawings and paintings made by young children are meaningless and have no value to them. A) Strongly Disagree; B) Strongly Agree; C) Mildly Agree; D) Mildly Disagree.

_____25. There are so many individual differences in children that it is foolish to anticipate that all children should behave the same. A) Strongly Agree; B) Mildly Agree; C) Mildly Disagree; D) Strongly Disagree.

_____26. In guiding a child, an adult should try to understand the situation from the child's point of view. A) Mildly Agree; B) Mildly Disagree; C) Strongly Disagree; D) Strongly Agree.

_____27. Shaming and blaming the child are effective ways of changing undesirable behavior. A) Mildly Disagree; B) Strongly Disagree; C) Strongly Agree; D) Mildly Agree.

_____28. Parents and teachers should listen when a child talks to them. A) Strongly Disagree; B) Strongly Agree; C) Mildly Agree; D) Mildly Disagree.

_____29. If a child is permitted a choice, adults should honor the choice no matter what the outcome. A) Strongly Agree; B) Mildly Agree; C) Mildly Disagree; D) Strongly Disagree.

_____30. If a child is to acquire skill in creative expression he needs to have examples to follow. A) Mildly Agree; B) Mildly Disagree; C) Strongly Disagree; D) Strongly Agree.

_____31. If an adult accepts a child as he is this helps the child accept himself. A) Mildly Disagree; B) Strongly Disagree; C) Strongly Agree; D) Mildly Agree.

_____32. When a child feels very strong about something, it is helpful to the child for the adult to put these feelings into words. A) Strongly Disagree; B) Strongly Agree; C) Mildly Agree; D) Mildly Disagree.

_____33. When a child misbehaves it is generally the result of misunderstanding, anger, fear or hurt. A) Strongly Agree; B) Mildly Agree; C) Mildly Disagree; D) Strongly Disagree.

_____34. A child's ideas should be seriously considered when making decisions that affect him. A) Mildly Disagree; B) Mildly Agree; C) Strongly Disagree; D) Strongly Agree.

_____35. Children should be kept away from all hard jobs which might be too difficult and discouraging to him. A) Mildly Disagree; B) Strongly Disagree, Strongly Agree; D) Mildly Agree.

_____36. When a child is painting or drawing, an adult should ask the child what is in his picture. A) Strongly Disagree; B) Strongly Agree; C) Mildly Agree; D) Mildly Disagree.

# INVENTORY OF ATTITUDES ON CHILD GUIDANCE

## Item Inventory on Attitude Scales

| SCALE | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| ITEM NUMBERS | 1* | 2* | 3 | 4 | 5* | 6 |
| | 7* | 8 | 9 | 10 | 11* | 12* |
| | 13* | 14 | 15 | 16 | 17 | 18* |
| | 19 | 20* | 21 | 22 | 23 | 24* |
| | 25 | 26 | 27* | 28 | 29 | 30* |
| | 31 | 32 | 33 | 34 | 35* | 36* |

SCALE TITLES

1. Understanding the child
2. Reflecting and accepting feelings
3. Re-directing behavior
4. Encouraging verbalization
5. Encouraging independence and initiative
6. Encouraging creativity

*Reverse scores

Revised, Fall 1969
Draper/Vansickle

November 1, 1969
Draper/Vansickle

DV-CHILD DEVELOPMENT INVENTORY

Please read the statements below and rank the choices from 1 to 4. Mark 1 for your best answer, 2 for next to best, 3 for third choice and 4 for the poorest answer.

1. Special enrichment programs in the home and in children's programs involving the use of pictures, stories, dramatic play, housekeeping activities and trips around the neighborhood will:
____a. help children develop language abilities.
____b. help children in orphanages but would probably not be helpful for children in most homes.
____c. have little effect on language development because children have plenty of time for talking during playtime and while they are with their mothers.
____d. help all children develop language skills.

2. During the child's early years, motor development means:
____a. as a child grows, certain parts of his body mature and he begins to control functions such as walking, talking, and feeding himself without help from adults.
____b. the child's control over most parts of his body does not really begin until after he starts school.
____c. at age 5, the child begins to develop more control over parts of the body used for throwing, catching, writing, hammering, etc.
____d. at 4 or 5 years of age, the child begins to gain control over parts of his body used for walking, running, swimming, climbing, feeding and dressing.

3. Influences which can have the greatest impact on the physical development of a young child are:
____a. a home with many intellectual and enrichment materials.
____b. good foods, proper exercise, and clean living conditions.
____c. growing up in the right kind of neighborhood.
____d. medical examinations, immunization and dental care.

4. Which of the following is true about how children learn?
____a. One of the first ways a baby learns is by finding out that some things are hard or soft, some are rough or smooth, and some are light or heavy.
____b. Children often learn how things look and feel and taste before they can talk about them.
____c. Children often understand the meaning of words such as "cooperation," "sharing", and "love" before they can do these.
____d. Children usually talk about how things look or feel or taste before they know that some things look big, some feel hard, and some taste sweet.

5. When a young child learns about different smells, sizes, textures, tastes and sounds:
___a. he is learning through his senses.
___b. he is beginning to understand the world around him.
___c. he is finding out that some things are very much alike and some things are very different.
___d. he has reached his highest level of thinking.

6. The development of a child before birth (prenatal development) may be influenced most by:
___a. the father's attitudes.
___b. the age of the mother.
___c. the mother's emotional state
___d. the mother's nutritional and health conditions.

7. A self-concept is:
___a. how the child sees himself and what he thinks about himself.
___b. how the child acts around others and what he says.
___c. what a child's mother or father thinks about him.
___d. if the child has a difficult time sleeping it is because he has a poor self-concept.

8. Young children often go through a stage of asking many questions. This questioning behavior:
___a. shows that the child is ready to start nursery school or kindergarten.
___b. is mostly a way the child can gain attention; thus, he should be discouraged from asking so many questions.
___c. shows that the child is curious and interested in many things and he wants to learn about them.
___d. shows that the child needs help as he grows and learns.

9. Many parents are faced with the problem of a child who favors his left hand. Left handedness is:
___a. the result of the left hand dominating the right hand.
___b. the result of practicing and developing patterns which started early in the child's life.
___c. the result of one side of the brain being more developed since birth.
___d. the result of the kinds of toys a child plays with when he is a baby.

10. Parents can better help children develop adequately if they know that development involves:
___a. maturation which is a process related to the physical growth of the child and his ability to do certain things with his body.
___b. acceleration in training a child to perform certain functions.
___c. encouragement of the child when certain clues are given which indicate the child is ready.
___d. leaving the child alone because the child will gain control over his body when the time is right.

11. Parents may encourage their children to increase thinking abilities by:
____a. providing crayons, pencils, paper, paste, paints and such materials for the child.
____b. praising the child's efforts and achievements.
____c. allowing the child to work freely with materials around the house, such as hammer, wood, cloth, and nails.
____d. making the child do simple tasks over and over until he learns the tasks.

12. A child will be able to work better when he starts to school if:
____a. he has had many different experiences, such as how things look, feel, smell, taste and sound.
____b. he has learned to do one thing well with his hands.
____c. he enjoys experimenting with things that help him learn, such as sand, water, clay, dough, and finger paints.
____d. he knows the names of animals which are fluffy and fuzzy and the name of animals which are slick, smooth and slimy.

13. Which illustrates the normal gain of weight by the mother during pregnacy?
____a. 10-15 pounds
____b. 18-20 pounds
____c. 21-24 pounds
____d. The range of an average of the mother's weight, divided by the weight of the father.

14. What helps the child to develop self-concept?
____a. Many expensive toys and many things to play with.
____b. The things he plays with, the places he plays, the toys he uses, and the things he sees and hears.
____c. The way that children and adults talk with him, treat him and play with him.
____d. The kind of house he lives in, the kind of food he eats, and the number of friends he has.

15. In order to break a child's stuttering pattern it is best to:
____a. insist that the child stop stuttering and to speak clearly.
____b. make the child feel less uncomfortable by paying little attention to the stuttering.
____c. encourage the child to talk about things that are interesting to him.
____d. ignore the stuttering as it is a stage which the child will outgrow.

16. A child's failure to respond to early motor training often results because:
____a. a baby does not have control of using his hands and fingers to grasp or let go.
____b. the child slowly gains control over releasing an object from his hand.
____c. most children are stubborn and do not have a desire to use their hands or fingers.
____d. a child cannot control all of his muscles because his hands and fingers are still immature.

17. At certain times the child seems to direct all his energy toward doing certain things. This is referred to as the "critical period." It means:
___a. the time that the mother feels most uncomfortable in teaching the child certain activities.
___b. the time when the child feels the greatest desire and interest to begin certain tasks.
___c. something inside the child which tells them it is time to wake up or eat.
___d. a point in a child's life when he is able to do his best with a task.

18. Parents can help their children learn to think for themselves by:
___a. placing restrictions on the child's exploration and curiosity until he is old enough to understand what he is doing.
___b. providing many situations in which he may play.
___c. making sure the child knows his place by letting him ask questions only about areas which meet with the parents' approval.
___d. encouraging the child to ask questions about any subject.

19. Children who have difficulties in speaking in school may have:
___a. a problem in hearing.
___b. many things to talk about at the same time.
___c. brothers or sisters who do all the talking for them.
___d. no interest in what is being talked about.

20. As families prepare for the birth of achild they should know that:
___a. every emotional experience of the mother will in some way affect the developing organism (unborn baby).
___b. the threat of very serious defects while the baby is developing inside the mother's uterus seems to be greater during the earlier period of pregnacy rather than during the later period.
___c. alcohols and drugs of any kind which are taken by the mother may have a "bad" effect on the unborn baby.
___d. many cases of mental deficiency are the result of the mother's illness before she becomes pregnant.

21. Which tells about how a child feels about himself?
___a. The child must know how to read before he starts to school or he will have bad feelings about himself.
___b. A child who is not happy and does not know how to play with others may lack self-confidence.
___c. The child who thinks he is "bad" usually gets into trouble at school.
___d. A child who does not know how to use puzzles, pictures, clay, books, toys, may have trouble learning in school.

22. When the young child often uses the words "I", "ME","Mine" and "Myself" it usually means that:
___a. the child is developing a self concept and he needs help in learning to share.
___b. the child is normal and is beginning to see that he is different from others.
___c. the child is interested in letting others know that he has things that belong to him.
___d. the child is selfish and does not care about anyone except himself.

23. Which of the following will result from being too strict with children during toilet training?
____a. Children learn bowel and bladder control early and quickly.
____b. Children may build poor attitudes toward the mother (and other adults) and refuse to cooperate even when they are ready for toilet training.
____c. Children think of themselves as "bad" if they can not succeed.
____d. Children become nervous and easily upset.

24. Heredity and environment are both important in the development of children. This means that:
____a. heredity (what the child is born with) and environment (the world in which the child lives) are both important in the development of the child.
____b. where the child lives, the people around him, the things around him and what he does may help him to grow and develop into a healthy and happy person if he has help in everyday living.
____c. it is not as important for the child to be born with certain abilities as it is for him to learn to use those which he does have.
____d. the way a child grows depends on whether or not he has plenty of toys to develop his body and TV to develop his interests.

25. The child's success in solving problems is dependent upon:
____a. his ability to use symbols such as words, gestures, and figures.
____b. the size of his vocabulary (how many words he can use).
____c. the ability to see how things go together and how things are alike or how things are different.
____d. whether or not the child likes school.

26. Parents can help a child grow and learn through his senses by:
____a. often holding him in order to help him feel secure.
____b. encouraging him to know how fuzzy things feel, how sweet things taste and how noisy things sound.
____c. taking him on walks or outdoors to let him see many kinds of things that he can touch and feel in order to learn about them.
____d. having indoor and outdoor activities that will help the child learn while he plays--such as learning the difference between dirt, sand, water, and snow.

27. The mother and her unborn baby:
____a. share the same blood system.
____b. have separate and unconnected blood systems.
____c. have different blood systems, but with some interchange of blood supply.
____d. share a mechanism which protects the baby from harmful drugs and germs that the mother may have taken.

28. Which is most correct about the child's self-concept?
____a. If the child thinks his family and others do not like him, he may not be able to do his best.
____b. The child will have a hard time "growing up" if he does not feel good about himself.
____c. Even if a child thinks his parents do not like him, he will probably have no problems as he grows up if he goes to a good school.
____d. The way the child sees himself is about the same way that his parent's see him.

29. The average child is usually ready for reading instruction at about the age of 6. This means that:
____a. children should wait until age 6 before beginning to read.
____b. the best time to begin helping children get ready for reading is when they are 6 years old.
____c. children begin to get ready for reading long before they reach the age of 6.
____d. children should have simple books and stories which they enjoy while they are young.

30. In order to help the child learn bladder control during the night it is best to:
____a. teach the child how to control his bladder during the daytime.
____b. give the child very little to drink before going to sleep.
____c. wake the child at least once each night for the toilet.
____d. wait until the child is about 3½ years old and he will be ready to learn night time bladder control.

31. When we compare the digestive system of adults with children it is found that:
____a. throughout early childhood the stomach and intestines are smaller but the lining of the stomach and intestines is quite strong and durable.
____b. there are larger amounts of digestive juices in children, proportionately to size.
____c. there is not much difference in the digestive system of children and adults so they should be able to eat the same amounts of the same foods.
____d. young children should be fed more often than adults and should be given smaller amounts of food than adults.

32. The child's ability to think can be increased by:
____a. providing difficult problems for the child.
____b. providing many puzzles and books.
____c. taking the child on walks, excursions and visits to places like the zoo.
____d. assisting the child whenever possible to find his own answers to questions he raises.

33. Young preschool children begin to learn about the world around them by:
____a. watching TV and movies.
____b. listening to stories.
____c. understanding what they can see, hear, feel, smell, and taste.
____d. learning to read good encyclopedias.

34. Which of the following statements is true concerning the mother's diet during pregnancy?
____a. Proteins (for building and repairing body tissues), fats, (for forming fat tissue in the body and keeping it warm), and carbohydrates (to give strength and energy), are absolutely necessary for mothers to be healthy during pregnancy.
____b. Children who have difficulties in school may have had poor prenatal health because of the mother's poor nutritional eating habits.
____c. Malnutrition during pregnancy may cause the mother's baby to be born with defects.
____d. If the mother eats plenty of good meat the baby will be in good health.

35. Which of these factors contribute most to the child's self concept to being either "good" or "bad"?
____a. The way the child's parents and family members treat him.
____b. Low smart the teachers and adults think he is.
____c. What the child thinks about his parents.
____d. The kinds of food the child eats.

36. Language development occurs as the child works and plays with others in the family, at school, and other places. Parents can best help their children by:
____a. insisting that the child use correct English and pronunciation.
____b. giving the child many chances to develop language by listening to records, watching TV and by listening to stories.
____c. reading to the child each day.
____d. giving the child a chance to talk with them about the things which interested him.

37. The most correct statement concerning bladder and bowel control is:
____a. The muscles which control the organs for elimination are the slowest to be controlled.
____b. Muscles used for elimination are not strong enough to control the bladder before the child learns to walk.
____c. The muscles for elimination and bowel control are not strong enough to begin toilet training before the child is 18 months old.
____d. The child is not developing normally unless he has good control of bowel and bladder muscles by the time he is one year old.

38. Developmental tasks means:
____a. those tasks a child needs to learn to do well at a certain age if he is to be a happy and useful person the rest of his life.
____b. jobs children should do each day around the house.
____c. jobs or activities that a child can do with his hands.
____d. things a child can do better at a certain age.

39. A mother can assist a young child to increase his learning ability while in the kitchen by:
____a. playing classical music on the phonograph.
____b. keeping the child in the high chair close to the counter or table where she is preparing food.
____c. helping the child to distinguish between sweet and sour tastes, various smells, and textures by letting him play with such foods as flour, jelly, macaroni, and others.
____d. by providing the child with wholesome nutritious foods to eat.

40. Parents can help a child get ready for school by:
____a. buying many books and making the child learn to read.
____b. letting the child look at pictures and books when he wants to.
____c. reading simple stories to him a little while each day to help him learn to enjoy stories and listening activities.
____d. letting the child collect colorful pictures and make up stories about them.

41. Which facts should mothers know in order to plan for healthy babies?

____a. The necessary food elements that supply the unborn child come from the mother's stomach through the umbilical cord.
____b. Most miscarriages are due to problems during pregnancy which cannot be corrected while the baby is being formed inside the mother.
____c. Drugs used by the mother may be dangerous for the unborn child.
____d. Smoking never causes any real problems for the pregnant mother or for the unborn child.

42. A child who has a good self concept usually:

____a. has good thoughts about himself even when he makes mistakes.
____b. enjoys having others around him.
____c. must be by himself while he is playing.
____d. feels good about himself.

DV-CHILD DEVELOPMENT INVENTORY

Item Inventory on Child Development Scales

| SCALE | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| ITEM NUMBERS | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| | 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| | 29 | 30 | 31 | 32 | 33 | 34 | 35 |
| | 36 | 37 | 38 | 39 | 40 | 41 | 42 |

SCALE TITLES

1. Language development
2. Motor development
3. Physical development
4. Problem solving
5. Sensory perception
6. Prenatal development
7. Self concept

Fall, 1969
Draper/Vansickle

DRAPER/VANSICKLE
SS0/70

CHILD DEVELOPMENT
212-124
STOUT STATE UNIVERSITY

I. Text: Dinkmeyer, Don C. Child Development: The Emerging Self, Englewood, Cliffs, New Jersey; Prentice-Hall Inc. 1965.

II. Introduction: The primary objective of this course is to provide an introduction to the social, emotional, intellectual and physical domains of child development. It will also be helpful in providing insights and understanding about child rearing and guidance and helpful in successfully fulfilling your roles as teachers, parents, and/or family members.

III. Objectives of the Course:

1. To develop useful concepts for studying the characteristics and dynamics of the developing child.
2. To gain knowledge, understandings and insights which enable class members to function effectively in relationships with children.
3. To seek and use facts in formulating relationships and comparisons while studying the problems and issues of child development.
4. To use primary source material when analyzing issues or formulating conclusions.
5. To distinguish editorial commentary from empirical reports.
6. To contrast key developmental and interactional concepts as frames of reference for understanding the growing human.
7. To identify and develop processes for socialization children.
8. To use elementary statistical tools for reading and interpreting graphs and charts.

IV. Supplementary Texts: These are suggested for optional reading. (They are not required for the course)

Breckenridge, Marian E. and Murphy, Margaret. Growth and Development of the Young Child. Philadelphia: W. B. Saunders Company, 1964.

Hurlock, Elizabeth. Child Development. New York: McGraw-Hill Book Company, 1964.

Johnson, Ronald C. and Gene R. Medinnus. Child Psychology. New York: John Wiley and Sons, Inc., 1965.

Mussen, Paul Henry, John Conger, and Jerome Kagan. Child Development and Personality. New York: Harper and Row, 1963.

Stone, L. Joseph and T. Church. Childhood and Adolescence. New York: Random House, 1957.

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Watson, Ernest and George Lowry. Growth and Development of Children. Chicago: Year Book Medical Publishers, Inc., 1967.

Watson, Robert I. Psychology of the Child. New York: John Wiley and Sons, Inc., 1965.

V. Major Topics to be Considered:

A. The study of children
   1. The scientific method
   2. Fact vs opinion
   3. Avenues to knowledge
   4. Distortion of reality

B. Theoretical frameworks
   1. Determinism--Psycholanalytic
   2. Teleological--Adlerian
   3. Developmental
   4. The need theory Approach

C. Early Childhood Development Program models

D. Prenatal Development
   1. Conception
   2. Influencing forces
      a. Heredity
      b. Environment
   3. Stages of prenatal development
   4. Birth
   5. Neonate

E. Growth and Development
   1. Principles of Development
      a. Definition of growth, maturation, development
      b. Individual variation
      c. Developmental tasks
      d. Critical periods
      e. Ages and stages
   2. Physical growth
      a. Structure and functions of the brain
      b. Structure and functions of the nervous system
      c. Structure and functions of the teeth
      d. Structure and functions of the bones
      e. Structure and functions of muscles
   3. Growth Pattern
      a. Computation of mean and standard deviation
      b. Age, height and weight
      c. Prediction of weight and height
      d. Use of growth norms, charts, and graphs
      e. Weight and height sequence
      f. Diagonsis of excellerated or slow weight
   4. Influences upon physical development
      a. Genetic
      b. Organic
      c. Environmental
      d. Nutritional
      e. Race and culture
   5. Adjustment to physical development and disorders
      a. Adjustment consequences
      b. Male-female differences

F. Motor Development
   1. Introduction to motor development
      a. Operational definitions of motor development
      b. Relationship of motor development to growth and maturation
      c. Neurological relationship to development of motor skills
      d. Categorization and sequence of motor development

   2. Measurements of motor development
      a. Scales of measuring motor development
      b. Assessment of normal and abnormal motor development
      c. Symptons of accelerated and slow motor development

   3. Motor Development sequence
      a. Early Childhood
      b. School age child
      c. Adolescent

   4. Motor Development adjustments
      a. Male-female differences
      b. Promotion and stimulation of motor skills
      c. Adjustments to physical defects
      d. Therapy and compensatory programs

G. Intellectual development
   1. Sensory perceptions
   2. Structure of intellect
   3. Measurement and prediction of IQ
   4. Relation of heredity and environment
   5. Attitudes
   6. Motivation: Achievement/aspiration
   7. Taxonomy of cognitive domains
   8. Language development
      a. Communication and learning
      b. Speech and acquisitions
      c. Factors effecting speech development
   9. Taxonomy of affective domains

H. Socialization
   1. The nature of man
   2. Self Concept
   3. Moral Development
   4. Achievement
   5. Adjustment mechanisms
   6. Models for parent-child interaction
   7. Families in the future

VI. Required Supplementary Reading (on reserve in the library):

1. Anderson, "Historical Perspective" (1)
2. Cannon, K. "The Concept of Contact Comfort" (4)
3. Cannon, K. "Emotional Maturity" (4)
4. Draper, H. "Growth and Development" (1)
5. Dreikurs, R. "The ABC'S of Guiding the Child" (1)
6. Erickson, E. "Developmental Tasks" (1)
7. Erickson, E. "White House Conference" (1)
*8. Flanagan, Geraldine. "The First Nine Months of Life" (1)
9. Fromm, E. "Self Love, Selfishness, Self Interest" (4)
10. Goodenough, F. "Goodenough Drawing Test" (3)
11. Gordon, A. "On the Far Side of Failure" (1)
12. Hennis, "Montessori" (1)
13. Hubbard, E. "Message to Garcia" (1)
14. Johnson, Eleanor "Guidelines for Preschool Learning Programs" (1)
15. Kaiser--Alumninum "Communication" (4)
16. King, H. "Intellectual Development" (3)

17. Kirkendall, L. "Moral Decision and Interpersonal Relationship" (1)

18. Law, Norma, "What are Nursery Schools for?" (1)

19. Magonn, A. "Emotional Maturity" (4)

20. Maslow, A. "Self Actualizing People, a Study of Psychological Health" (4)

*21. Muller, "The Tasks of Childhood" (1)

*22. Mussen, "Child Development and Personality" (1)

23. Nimnicht, G. "The New Nursery School" (1)

24. Osborne, K. "Permissiveness re-examined" (4)

25. O.E.O. "Relation to Preschool and Day Care" (1)

26. Prescott, D. "The Role of Love in Humans" (4)

27. Spodek, B. "New Directions in Early Childhood Educational Programs" (1)

28. Steinbeck, "Pastures of Heaven" (0)

29. Woodbridge, "That Something" (0)

*Paperback Books not on reserve. These can be obtained in local book stores.

VII. Useful Terminology

Achievement
Adjustment
Adolescence
Affection
Ages and Stages
Ambidexterity
Amniotic
Anti-social
Anxiety
Aspiration
Assumptions
Attitudes
Authoritarian
Autistic
Atonomy
Behavior
Bi-lingual
Breech Birth
Caesarean Section
Catharsis
Chromosomes
Cognition
Competition
Concepts
Conditioning
Conformity
Conscience
Contact Comfort
Corporal Punishment
Critical Periods
Cross Sectional Studies
Curiosity
Defense Mechanisms
Democratic Discipline
Dependencies
Depriviation
Development
Developmental Lags
Developmental Tasks
Discipline
Dramatic Play
Ego
Electra Complex
Embilical Cord
Emotions
Extroversion
Family Functions
Family Structure
Fallopian Tubes
Fear
Fertilization
Fetus
Fontinells
Fragmentation/ Phenomonological
Frustation Thresholds
Gonads
Gregariousness
Growth/Maturation
Guidance
Handedness
Heridity
Hetro-sexual
Homeostatious
Homosexual
Heuristic
Hypotheses
Identification
Imprinting
Individuality
Infancy
Inferiority
Intelligence
Intelligence Quotient
Learning
Longitudinal Studies
Maladjustments
Malnutrition
Masturbation
Maternal
Maturation
Morality

Motivation

Motor Development

Nature/Nuture

Nature of Man

Needs

Neonate

Obesity

Ossification

Ovaries

Pain Threshold

Parental Control/Warmth

Peers

Personality

Placenta

Play

Prematurity

Prenatal

Process/Product

Puberty

Reasoning

Regression

Rejection

Scientific Method

Self

Self-Concept

Sensory Development

Sibbling

Socialization

Socialization Process

Sperm

Status

Temperment

Thinking

Toilet Training

Trauma

Uterus

Zygote

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